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Geological Report

BURTON & HAWKS, INC.
UNION TEXAS PETROLEUM

State #29-1
W/2 Southwest Southeast
Section 29, Township 9 North, Range 81 West
Jackson County, Colorado

DVR	
FJP	
HJW	
JRW	
LJO	

C. S. CANNAN
PETROLEUM GEOLOGIST

BURTON & HAWKS, INC.
UNION TEXAS PETROLEUM

State #29-1

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Section 29, Township 9 North, Range 81 West

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STATISTICAL WELL DATA

OPERATOR	BURTON - HAWKS, INC.
Lease & Well	State #29-1
Location	W/2 SW SE Sec. 2 ^o T9N R81W
Elevation	8365 K.B. 8358 GR.
Status	Wildcat
Contractor	George McGee Drilling Co.
Pusher	George McGee
Spud Date	6/3/73
Under surface	6/7/73
Completed Drilling	6/15/73
Plugged	6/16/73
Surface hole drilled with mud	0 - 283'
Drilled with gas	283 - 2901
Drilled with mud	2901 - 3492
Mud Company	Basin Mud
Engineer	Joe King

CASINGRECORD

8 Jts. 8 5/8 (24# J55) @ 283' K.B. with 100 sx Reg cement 2%

CaCl. Halliburton plug down @ 3:30 P.M. 6/4/73

BIT RECORD

Pilot for surface hole.

1	7 7/8	Retip	0 - 283'
2	12 1/4	Rerun	0 - 283'
1	7 7/8	Retip	283 - 1400'
2	7 7/8	Retip	1400 - 2127'
3	7 7/8	Rerun	2127 - 2660'
4	7 7/8	3JS	2660 - 3360'
5	7 7/8	Retip	3360 - 3364'
6	7 7/8	Smith D2THJ	3364 - 3373'
7	7 7/8	HTC WRJ	3373 - 3492'

29-9N-8W

DRILL STEM TEST

#1 Dakota Sand 3335 - 3360'
IH 1643#
FH 1632#
IF 1 14#
FF 1 28# 10 min.
IF 2 42#
FF 2 16# 1 hr.
ISI 1462# 50 min.
FSI 1462# 50 min

Bottom Hole Temperature 92°

Weak blow steady throughout test.

Recovered 365' fluid

60' Mud cut water

305' Freshwater

DAILY CHRONOLOGICAL REPORT

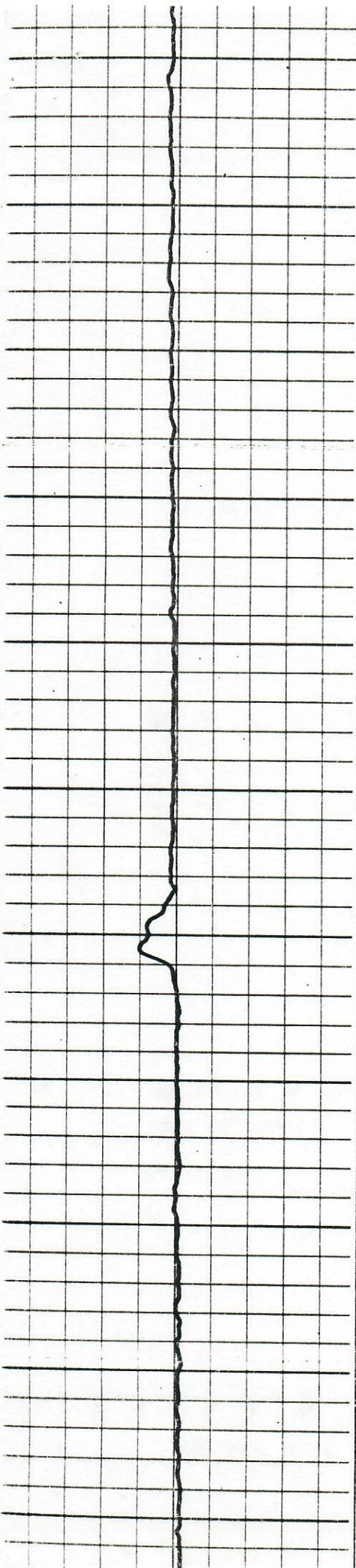
- 6/2/73 Moving in. Rig up.
- 6/3/73 Rig up. Pump water. Drilling rat hole. Drill pilot hole.
- 6/4/73 Finish pilot hole. Drill 12 1/4 hole. Ran casing. Cemented. Waiting on cement.
- 6/5/73 Nipple up and waiting on gas.
- 6/6/73 Waiting on gas.
- 6/7/73 Waiting on gas. 1:00 P.M. got gas. Blow line and test blow out preventors. Drill cement shoe. Under casing @ 4:30 P.M. Drill to 597'. Trip for bit. Pinched cones.
- 6/8/73 In hole. Ream one joint to bottom. Got water @ 825'. Hook up Mist Unit. Drill to 1600' 12:00 P.M.
- 6/9/73 Drilling 1889' @ 8:00 A.M. Trip @ 2660'. Take off square collar. In with button bit.
- 6/10/73 Finish trip. Frontier 2710'. Drilling to 2930'. Hole loaded up with water. Mud up. Drill ahead.
- 6/11/73 Drilling to 3134'. Bit locked up. Trip for new bit. On bottom @ 4:25 P.M. Mowry 3147'.
- 6 12/73 Drilling @ 3317' @ 6:00 A.M. Dakota Sand 3328'. Drill to 3360. Mix mud for Drill Stem Test. Pull test.
- 6/13/73 Finish. Pulling test tool. Going back in hole with bit. Dropped tong pin. Drill on iron. Order out magnet. Run magnet. No fish on first run. In with Bowin Basket. Made 18". No fish. In with magnet. No fish.
- 6/15/73 In with new WRJ. Drill iron. Took off. Drill Lakota Sand. Top 3398'. Drill to 3490. Preparing to log. Wait on Schlumberger to come out of hole. Vis. 64. Wt. 93.
- 6/16/73 Completed logging. Plugged and abandoned.

LOGGING PROGRAM

Schlumberger - I.E.S. Density - Dip Meter

ELECTRIC LOG FORMATION TOPS

Frontier	2708	+5657
Fort Hayes	2890	+5475
Mowry	3149	+5216
Dakota	3334	+5031
Lakota	3415	+4950
Morrison	3485	+4880



1900

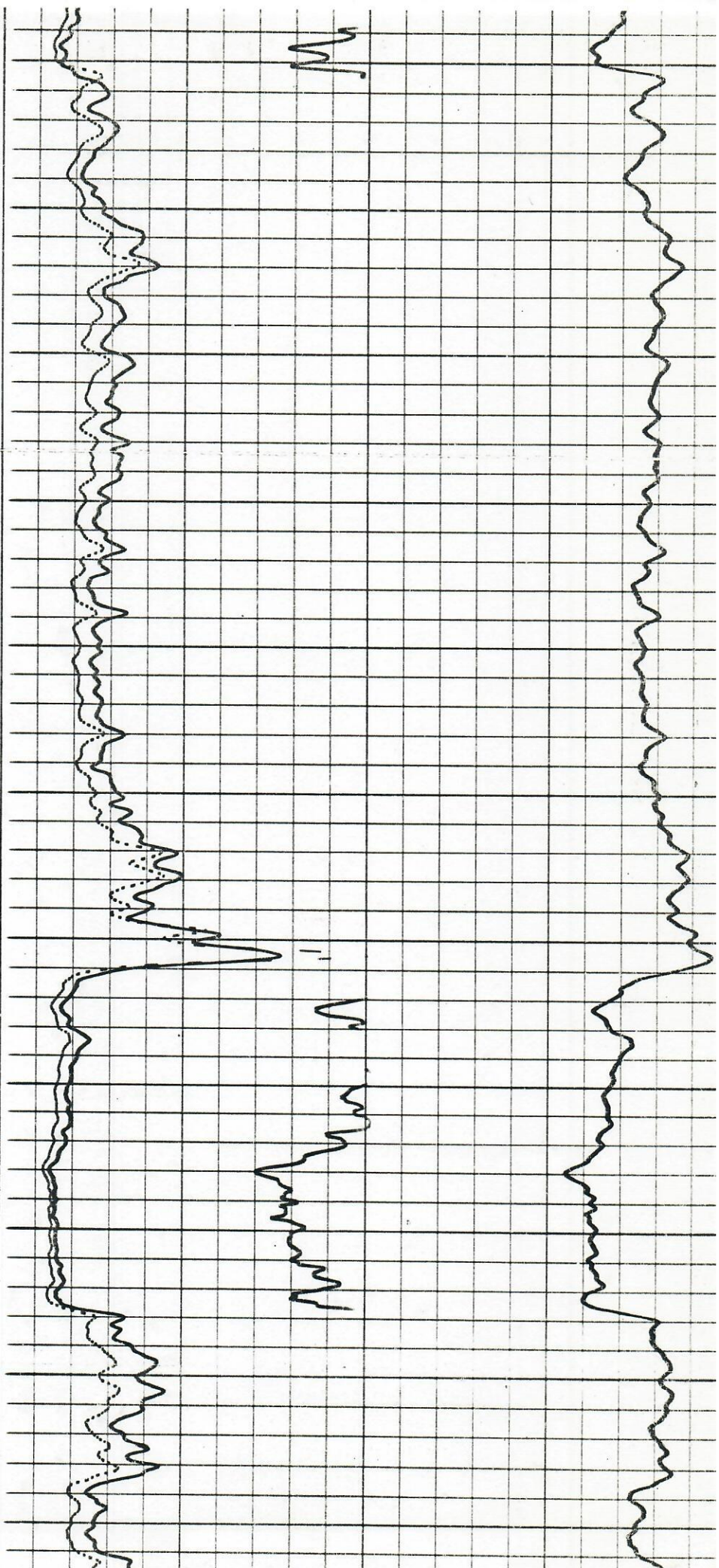
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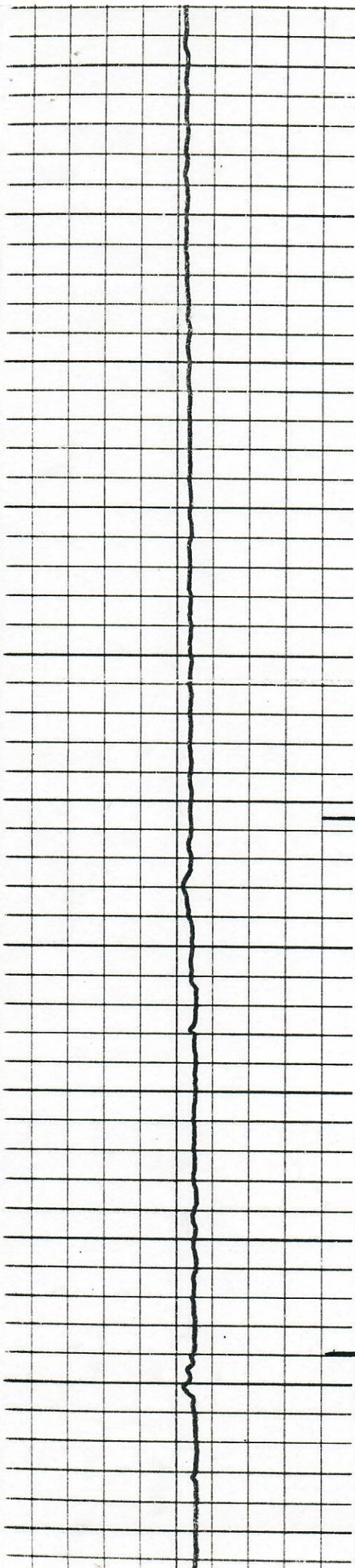
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2200

2300

2400





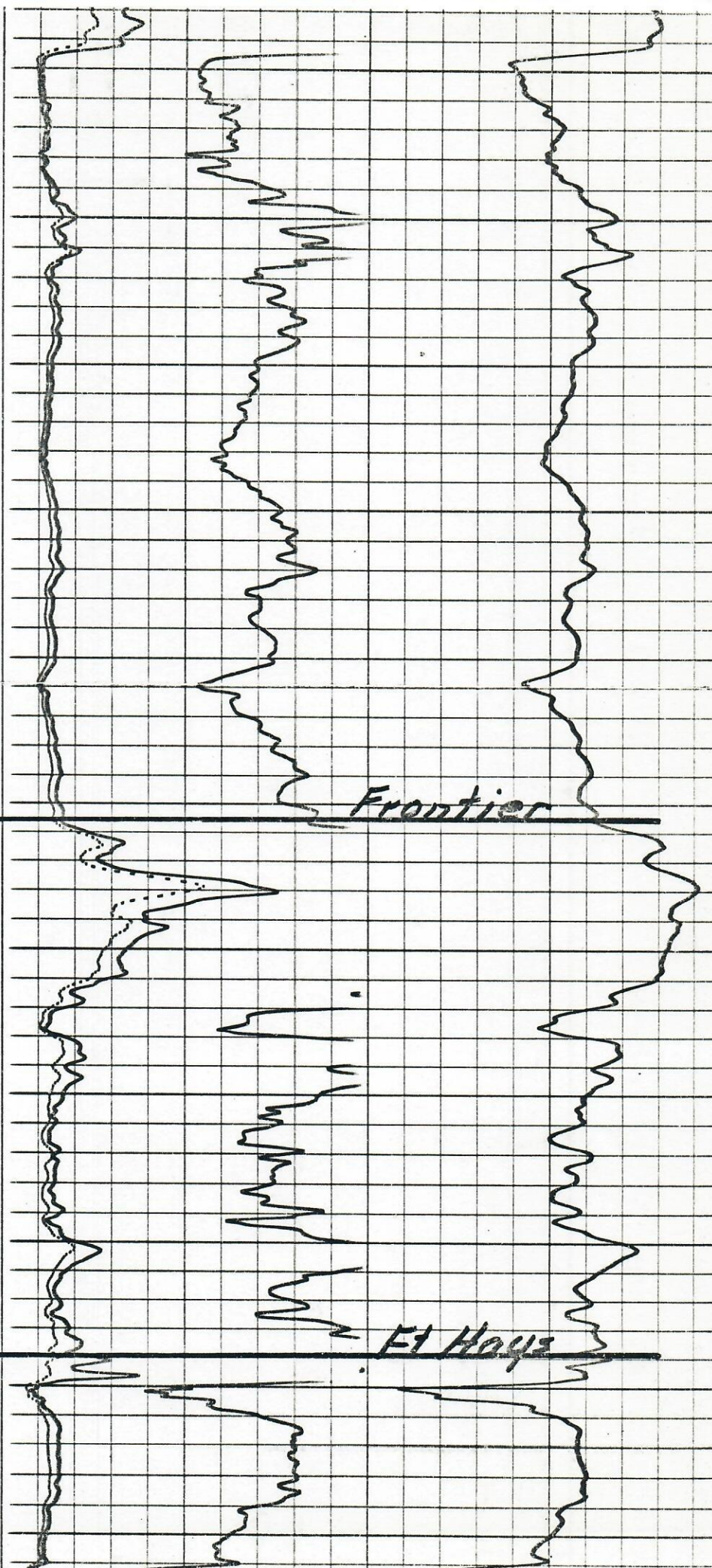
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2700

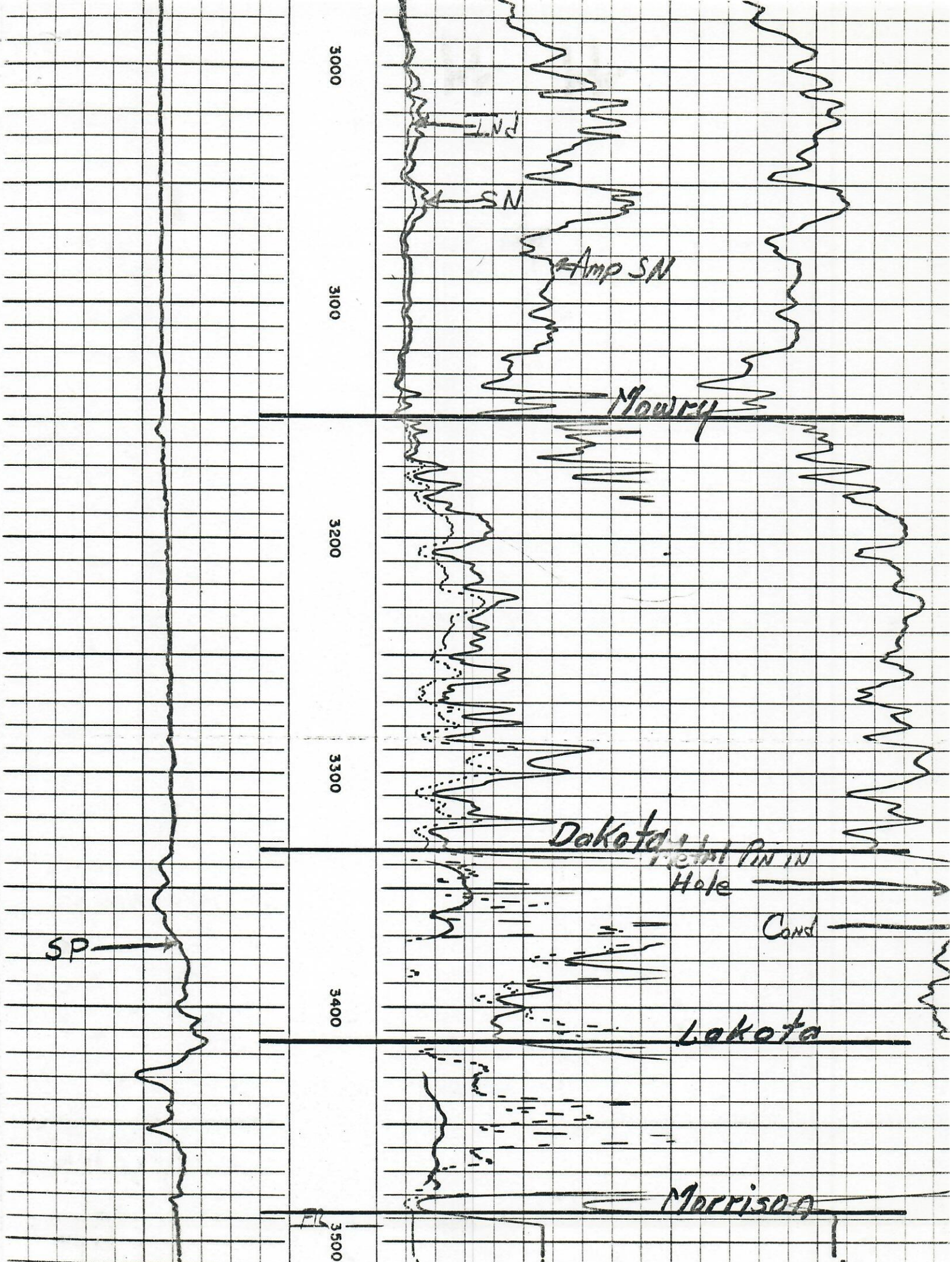
2800

2900



Frontier

El Hoye



SAMPLE DESCRIPTION

AIR SAMPLES

1471 - 1531	Grey shale. Grey silty shale.
1531 - 1588	As above.
1588 - 1647	Shale, grey - dark grey. Very slight trace fossil fragments.
1647 - 1738	Shale. Very slight trace fossil fragments.
1738 - 1770	Shale. Slight increase fossil fragments.
1770 - 1820	As above. Slight increase fossil fragments.
1820 - 1885	Shale. Heavy fossil fragments.
1885 - 1935	As above.
1935 - 1977	Shale. Decreasing fragments.
1977 - 2006	Heavy fragments.
2035 - 2094	As above.
2094 - 2155	As above.
2155 - 2210	Traces of fractures with white calcite filling with heavy brown staining. Abundant shows of oil in calcite and fractures. Show of gas on 2215 connection. Much water.
2210 - 2660	Shale - grey firm.
2660 - 2687	Shale as above. Very slightly silty to siltstone.
2687 - 2712	As above.
2712 - 2749	Hard, dark grey - dark grey calcareous silty shale and siltstone.

SAMPLE DESCRIPTION (con't)

2749 - 2778 Siltstone as above. No visible show.
2778 - 2808 As above.
2808 - 2839 Grey, hard shale.
2839 - 2869 As above.
2869 - 2901 As above. Trace silty shale.

MUD SAMPLES

2930 - 2940 Grey shale. Much soft white bentonite.
2940 - 2960 As above. Trace Fort Hayes spicular lime.
2960 - 2970 Shale. Grey, firm.
2970 - 3040 As above.
3040 - 3050 Shale. Hard grey slightly calcareous. Slightly silty.
MOWRY.
3050 - 3250 As above.
3250 - 3260 Shale. Hard grey silty.
3260 - 3270 Shale, silty as above. Hard grey very slightly
calcareous argillaceous siltstone.
3270 - 3280 Siltstone. Light grey hard. Glassy in part.
3280 - 3330 As above.
3330 - 3340 Sandstone. Hard white silicious fine-medium grain
tight. Much soft white silicious material. Few
clusters with spotted dark staining with weak dull
fluorescence.
3340 - 3350 Sand as above. Some staining as above. Trace
strong bright isolated specks fluorescence. Trace
sand with fluorescence on probable fracture faces.

SAMPLE DESCRIPTION (con't)

3350 - 3360	Sand as above.
3360 - 3390	Sand as above.
3390 - 3400	Sand as above. Slight increase in dark shale.
3400 - 3420	Sand. White unconsolidated, unsorted, much white soft silicious matrix.
3420 - 3460	As above.
3460 - 3470	As above. Trace orange chert.
3470 - 3480	As above. Chert, white, smoky.
3480 - 3490	Shale, dark grey-grey, light very slight greenish grey.

SUMMARY

The State 29-1 well was drilled to a total depth of 3492' at 4:43 P.M. June 15, 1973. The well was drilled to a depth of 2930' with gas where such an increase in water was encountered that it was necessary to go to drilling mud.

The Dakota Sand was topped at 3328. A very light show of hydrocarbon was found. A drill stem test was run and recovered 365 feet of drilling mud and fresh water. No shows were found in the Lakota.

During the drilling of the hole frequent directional surveys were run. The bit gradually drifted in direction from approximately S 78° W to S 14° W. Drift angle indicated a climb to 14° until a depth of 3350' was reached where the angle dropped from 14° to 12°. These two factors indicated that the bit crossed the structural axis and that the higher part of the structure was to the South.

It is recommended that this hole be plugged and abandoned and that further sub-surface work be done immediately to the South.



**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

Burton & Hawks
COMPANY

State 29-1
WELL NAME

Walden, Colorado
LOCATION

JOB NUMBER

TYPE OF SURVEY

DATE

Single Shot

6-15-73

SURVEY BY

OFFICE

Rocky Mtn.



RECORD OF SURVEY

State 29-1

CHECKED BY _____

JOB NO. _____

DATE 6-15-73

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH		VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES						
								NORTH	SOUTH	EAST	WEST			
	224	Vertical												
1	449	1°30'	449	00		5 89	S77W		1 32				5 74	
2	597	2°	596	91		5 17	S68W		3 25				10 54	
3	718	2°15'	717	81		4 75	S64W		5 33				14 82	
4	901	2°15'	900	68		7 18	S63W		8 59				21 22	
5	1021	2°45'	1020	54		5 76	S53W		12 06				25 82	
6	1168	3°15'	1167	34		8 33	S51W		17 30				32 29	
7	1351	4°30'	1349	83		14 36	S49W		26 72				43 13	
8	1501	5°	1499	26		13 08	S44W		36 13				52 22	
9	1648	5°15'	1645	64		13 45	S48W		45 13				62 00	
10	1767	6°45'	1763	82		13 98	S47W		54 67				72 45	
11	1947	7°	1942	47		21 94	S47W		69 63				88 50	
12	2064	7°45'	2058	40		15 78	S46W		80 59				99 85	
13	2216	9°	2208	53		23 78	S44W		97 70				116 37	
14	2367	9°30'	2357	46		24 92	S43W		115 93				133 37	
15	2513	10°	2501	02		25 35	S42W		134 77				150 33	
16	2687	10°30'	2672	11		31 71	S39W		159 47				170 29	
17	2808	13°30'	2789	79		28 24	S27W		184 57				183 11	
18	2959	13°30'	2936	62		35 25	S24W		216 77				197 45	
19	3106	14°	3079	25		35 56	S21W		249 97				210 19	
20	3258	13°30'	3227	05		35 48	S14W		284 40				218 78	
21	3319	12°	3286	72		12 68	S14W		296 70				221 84	
22	3350	11°30'	3317	04		6 18	S14W		302 70				223 34	
								CLOSURE DIRECTION	S36°25'W					
								CLOSURE DISTANCE	376.18 feet					

PLAN

EASTMAN
OIL WELL
SURVEY COMPANY

